

STATE OF ILLINOIS
WILLIAM G. STRATTON, *Governor*
DEPARTMENT OF REGISTRATION AND EDUCATION
VERA M. BINKS, *Director*
DIVISION OF THE
STATE GEOLOGICAL SURVEY
M. M. LEIGHTON, *Chief*
URBANA

No. 68

ILLINOIS PETROLEUM

July 25, 1953

PRINTED BY AUTHORITY OF THE STATE OF ILLINOIS

DEVELOPMENTS IN ILLINOIS AND INDIANA IN 1952¹

ALFRED H. BELL² AND DONALD G. SUTTON³

Urbana, Illinois, and Evansville, Indiana

ABSTRACT

In Illinois and Indiana, 3,357 wells were drilled for oil and gas in 1952 as compared with 3,702 in 1951, a decrease of 9 per cent. Total oil production increased 1.6 per cent, from 70,841,000 barrels in 1951 to 72,008,000 barrels in 1952. Exploratory drilling decreased from 1,483 completions in 1951 to 1,181 in 1952. Forty-six new pools, 97 extensions, and 55 new producing zones were discovered in the two states in 1952.

As in previous years, most of the discoveries in 1952 were in Mississippian formations. Six new pools produced from Pennsylvanian sandstones, 7 from Devonian or Silurian limestones, and 1 from Ordovician limestone.

INTRODUCTION

In Illinois and Indiana, 3,357 wells were drilled for oil and gas in 1952 as compared with 3,702 in 1951, a decrease of 9 per cent. Total oil production increased 1.6 per cent, from 70,841,000 barrels in 1951 to 72,008,000 barrels in 1952. Exploratory drilling decreased from 1,483 completions in 1951 to 1,181 in 1952, a decrease of 20 per cent. Forty-six new pools, 97 extensions, and 55 new producing zones were discovered in the two states in 1952.

In the Illinois basin area (southern Illinois and southwestern Indiana) 32 out of 46 discovery wells of new pools produced from Mississippian formations (21 in the Chester series and 11 in the Lower Mississippian). Of the other 14 discovery wells of new pools, 6 produced from Pennsylvanian sandstone, 7 from Devonian or Silurian limestone, and 1 from Ordovician limestone.

ILLINOIS

BY ALFRED H. BELL

In Illinois 2,077 wells were drilled for oil and gas in 1952 as compared with 2,383 in 1951, a decrease of 13 per cent. (These figures are exclusive of water- or gas-input wells, salt-water disposal wells, and old wells worked over.) This drilling resulted in 802 oil wells, 17 gas wells, and 1,258 dry holes.

Of the 2,077 wells drilled, 663 were wildcats, as compared with 839 wildcats in 1951, showing a decrease of 21 per cent in 1952. Of the wildcat wells in 1952, 256 were drilled more than 2 miles from production ("wildcats far"), of which 8, or 3.1 per cent, were successful. In 1951, 4.8 per cent were successful.

Of the 663 wildcat wells drilled, 24 discovered new pools, and 55 discovered extensions to pools (Tables I and II). In addition, 27 wells, most of which can not be classified properly as exploratory wells, discovered additional producing zones in known producing areas (Table III).

¹ Reprinted from *Bull. Amer. Assoc. Petrol. Geol.*, Vol. 37, No. 6 (June, 1953), pp. 1301-1314.

² Geologist and head, Oil and Gas Division, Illinois State Geological Survey. Virginia Kline and Kathryn C. Irving, Illinois Geological Survey, assisted in preparation of this report.

³ Geologist, Sun Oil Company.

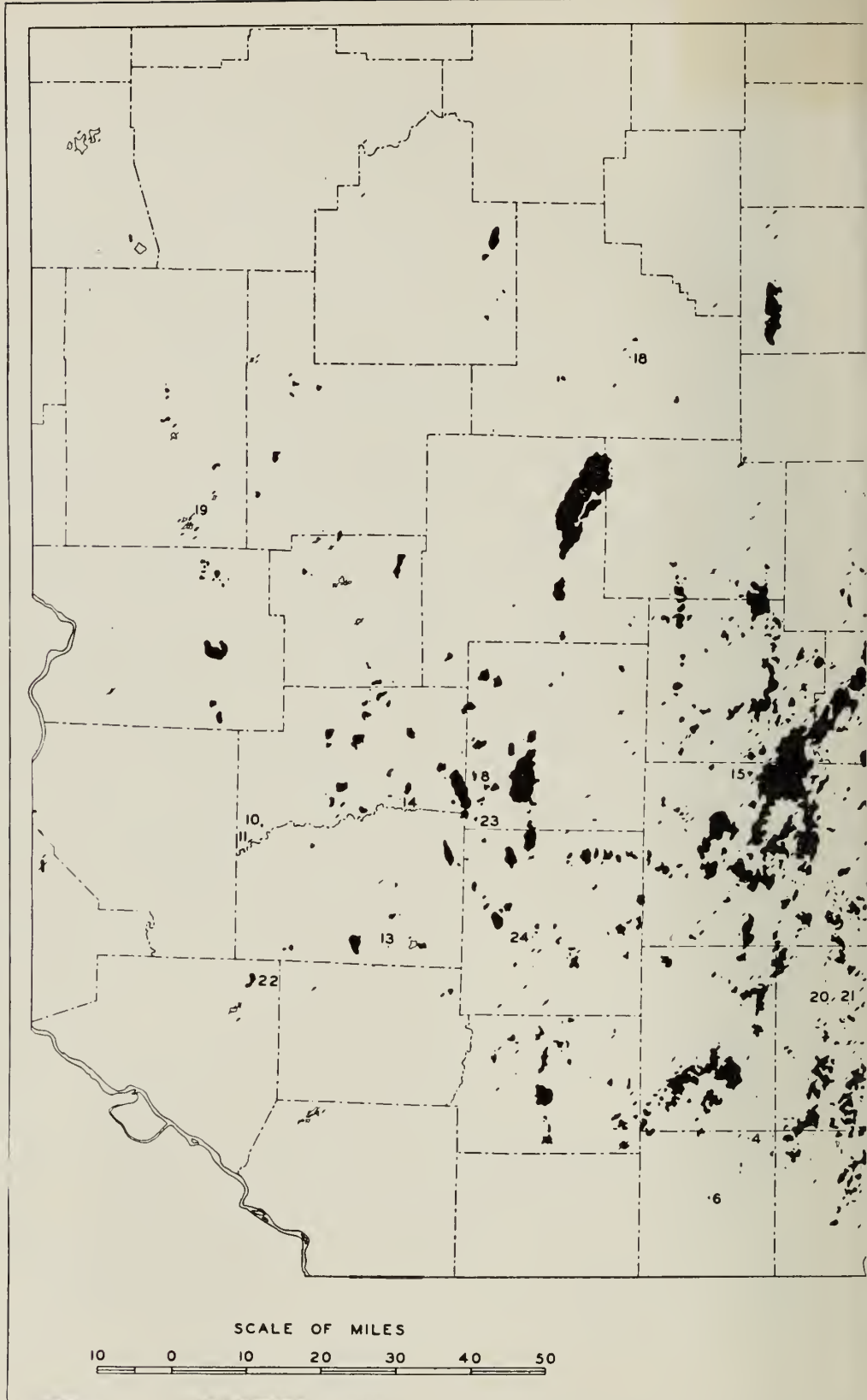
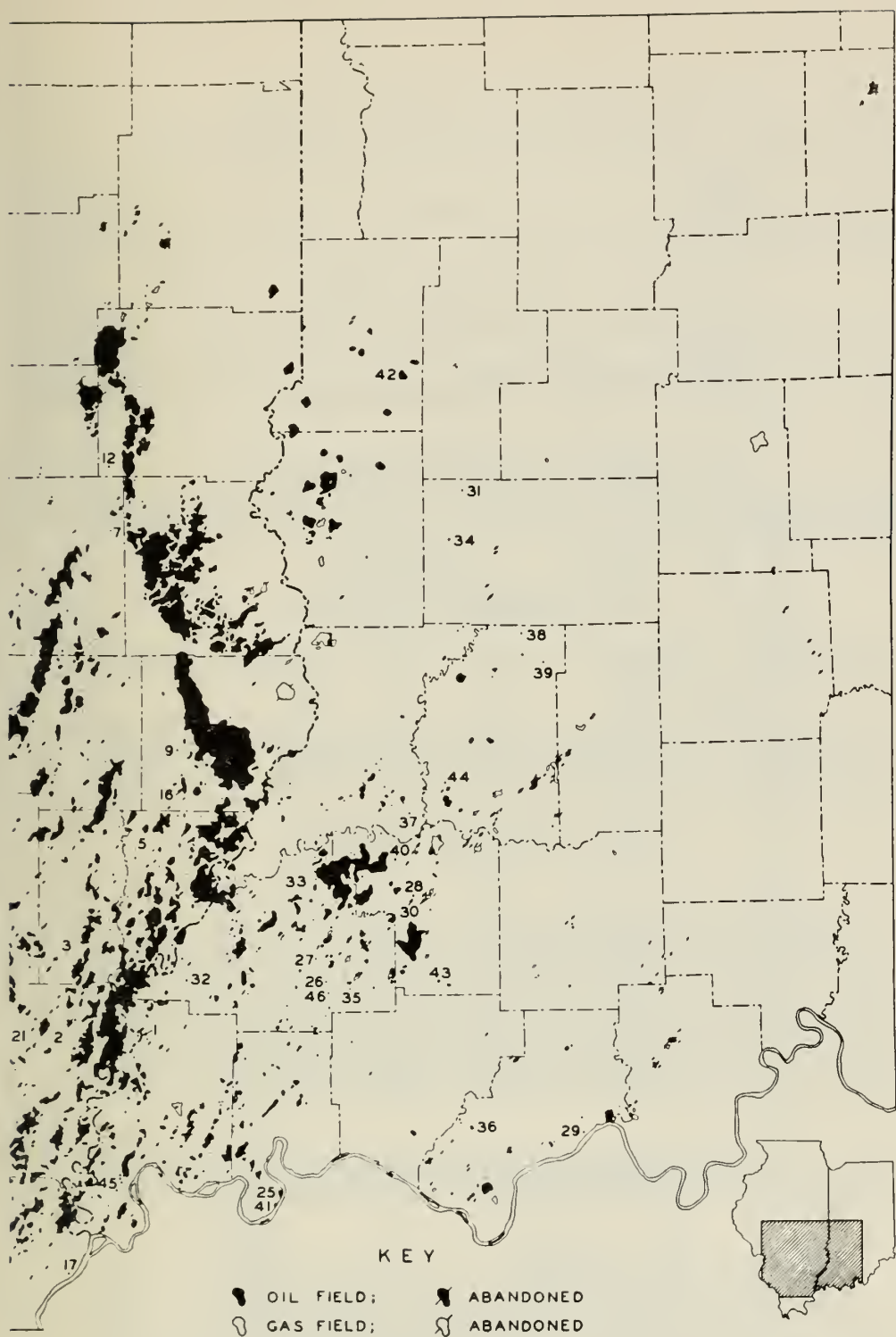


FIG. 1.—Oil and gas pools in Illinois and Indiana



JANUARY 1, 1953

Numbers indicate new pools discovered in 1952.

TABLE III. DISCOVERY WELLS OF ADDITIONAL PRODUCING ZONES IN POOLS IN ILLINOIS IN 1952

Pool	County	Company and Farm	Location	Total Depth (Feet)	Producing Formation	Depth to Top (Feet)	Initial Production (Bbl.) ^A	Date of Completion of Discovery Well
1. Beaucoup	Washington	Collins Bros. 3 Stricker-Meinert "B"	10-S-2W	4,102	Trenton	4,093	50; 50 ^B	11-25
2. Bone Gap Consol.	Edwards	V. R. Gallagher 1 Briggs	19-S-14W	2,341; PB 2,121	Pennsylvanian	2,108	18	11-25
3. Bone Gap Consol.	Edwards	V. R. Gallagher 1 P. Schmidt	18-S-14W	3,141; PB 2,896	Bethel	2,878	150	7-1
4. Bone Gap Consol.	Edwards	V. R. Gallagher 1 F. Rastler	18-S-14W	2,310	Waltersburg	2,317	17	1-15
5. Brown	Marion	T. M. Pruett 1 Morris-Frazier Comm.	16-N-1E	850	Petro	843	8	5-6
6. Carlyle	Clinton	Edens & Wattleworth 2 Haumesser	15-S-1W	1,123; PB 1,070	Golconda	962	3; 8	6-10
7. Clay City Consol.	Richland	Pure 2 E. Walters	24-N-3E	3,646	Warsaw	3,598	54; 96 ^C	12-13
8. Clay City Consol.	Richland	Murvin & Steber 2 Wheeler	24-N-9E	2,598; PB 2,188	Waltersburg	2,174	14; 10	9-16
9. Ellery Consol.	Wayne	Ill. Mid-Continent 1 J. H. Piercy	25-S-9E	3,440	St. Louis	3,418	250 ^B	11-11
10. Epworth Consol.	White	B. Lambert 1 Calvert	31-S-10E	3,035	Waltersburg	2,350	35 ^B	11-11
11. Inman West Consol.	White	Howard & Howell 4 Maloney	32-S-10E	3,256; PB 1,104	Pennsylvanian	1,090	4,500,000 cu. ft.	11-18
12. Johnsonville West	Gallatin	W. O. Lucas 1 F. A. Hufines	26-S-9E	1,625	Pennsylvanian	1,585	56	4-29
13. Johnsonville West	Wayne	Carter Oil 5-D. C. McCullum	13-N-3E	3,100; PB 2,947	Bethel	2,927	11; 1	8-12
14. Loudon	Fayette	Skiles P-1 R. Hudson	6-S-12W	3,104; PB 2,950	Carper	2,830	54; 3	10-21
15. Main	Crawford	Asbland & O'Neil 1 Bingham	19-S-14W	2,313	Waltersburg	2,303	3,000,000 cu. ft.	11-25
16. Mitchell*	Wayne	Pappas & Ashland 1 Allison Hrs.	36-S-9E	3,388; PB 3,250	Aux Vases	3,214	18	1-15
17. New Harmony Consol.	White	Superior 17 H. C. Ford "C"	27-S-14W	3,388; PB 3,250	Salem	3,753	20; 10	9-30
18. New Harmony Consol.	White	Ervin & Bassett 1 Weirich	29-S-12W	1,513	Aux Vases	1,490	390,000 cu. ft.	8-12
19. Parkersburg Consol.	Crawford	George & Wrather 1 R. Harmon	29-N-14W	3,248; PB 2,375	Waltersburg	2,362	22; 2	2-5
20. Parkersburg Consol.	Marion	Tahot et al. 1-T. Davidson	34-N-1E	4,178	Devonian	2,953	172; 80	10-14
21. Patoka East	White	Aubrey-Tennant 1 Ackerman	10-S-10E	3,182; PB 2,357	Tar Springs	2,346	10	1-8
22. Phillipsburg South	Lawrence	W. Duncan 1 H. Hardacre	13-N-13W	2,417	Cypress	2,167	110; 15 ^B	8-12
23. Ruark West Consol.	Lawrence	Coy Oil 1 O. Siegle	13-N-13W	2,408	Bethel	2,204	172 ^B	6-24
24. Ruark West Consol.	Clay	G. Marvin et al. 1 Kenley	36-N-7E	3,095; PB 2,370	Tar Springs	2,330	19; 40	11-18
25. Sailor Springs Central	Clay	George & Wrather 1-B. H. E. Brown	32-S-10E	3,155	Rosiclare	3,139	26	11-25
26. Sumpter East	White	George & Wrather 2 R. Winter	32-S-10E	3,227; PB 3,038	Aux Vases	3,022	125	1-8
27. Sumpter East	White							

A Oil and water.

B Producing from 2 pays.

C Producing from 4 pays.

* Now in Ellery Consol.

TABLE IV. SELECTED LIST OF DRY TESTS

Pool	County	Company and Farm	Location	Total Depth (Feet)	Deepest Formation	Depth to Top (Feet)	Date of Completion
1.	Alexander	Prindle & Vick 1 Petty	19-16S-2W	1,058	St Peter	1,003	4- 8-52
2.	Alexander	Vick Oil 1 Smith	15-17S-2W	1,847	Knox	1,686	8- 5-52
3.	Clark	J. Reznik 1 Washburn	32-9N-14W	2,581	Devonian	2,490	10- 7-52
4.	Clinton	Sun Oil 1 E. Kahre	21-1N-2W	2,806	Silurian	2,727	4-29-52
5.	Clinton	R. K. Hammel 1 O. W. Billhartz	6-1N-5W	2,858	Trenton	2,747	10-21-52
6.	Crawford	West Drlg. Co. 1 Brown	12-7N-11W	2,826	Devonian	2,727	10-2-52
7.	Cumberland	A. J. Slagter 1 C. Layton	20-10N-8E	3,900	Devonian	3,728	11-25-52
8.	DeWitt	Theo. Myers 1 Fink	25-19N-1E	2,003	Devonian	1,913	4-15-52
9.	Douglas	H. R. Lippitt 1 Green-Martin Comm.	17-14N-10E	1,078	Devonian	985	6-17-52
10.	Edgar	F. B. Cline 1 Hughes & Powers	15-15N-14W	1,944	Trenton	1,751	10- 7-52
11.	Effingham	Pure 1 W. J. Dammerman	33-8N-5E	3,938	Silurian	3,873	6-10-52
12.	Fayette	P. D. Todhunter 2 C. Belcher	16-4N-1W	2,892	Devonian	2,783	10- 9-52
13.	Fayette	Sun Oil 1 H. Sommers	19-9N-1E	3,035	Devonian	2,921	7- 8-52
14.	Jasper	Turnipseed & Formals 1 Hartrich	30-6N-11E	4,500	Devonian	4,366	1-29-52
15.	Macon	H. C. Herring 1 T. E. Hays	33-17N-2E	2,102	Silurian	2,066	5-20-52
16.	Madison	The California Co. 1 A. Kurtz	1-3N-6W	2,655	Decorah	2,650	6-17-52
17.	Menard	E. Zink 1 J. H. Walker	32-18N-7W	1,238	Devonian	1,209	11-18-52
18.	Monroe	C. Jensen 1 Stumpf	31-2S-10W	1,152	St. Peter	1,147	7-22-52
19.	Monroe	Mississippi River Fuel A-15 Theobald	35-1S-10W	2,768	Pre-Cambrian	2,760	3-12-52
20.	Montgomery	E. L. Wirth 2 Poggenpohl	10-10N-4W	2,090	Silurian	2,021	10-14-52
21.	Montgomery	Superior Oil 1 L. E. Lanigan	17-8N-3W	2,125	Devonian	2,016	9-16-52
22.	Montgomery	Superior Oil 1 W. Singler	3-8N-2W	13,250	Trenton	3,174	9-16-52
23.	Moultrie	E. A. Obering 1 B. A. McReynolds	18-14N-4E	3,494	Trenton	3,393	11- 4-52
24.	Perry	G. S. Engle 1 E. Mayer	22-5S-4W	2,665	Silurian	2,650	5- 6-52
25.	Randolph	H. F. Robison 1 J. Buckhorn	6-6S-6W	2,301	Trenton	2,246	11-11-52
26.	St. Clair	R. M. Dooley 1 Mugele	1-1N-6W	2,847	Trenton	2,747	7-15-52
27.	St. Clair	D. W. Forbes 1 Grandcolas	15-1S-7W	2,235	Trenton	2,137	12-16-52
28.	St. Clair	J. W. Jaske 1 Hankammer	4-1S-9W	1,253	Trenton	1,208	10-21-52
29.	St. Clair	J. W. Jaske 1 M. Keeser	28-1S-8W	1,450	Trenton	1,355	9- 9-52
30.	Sangamon	Gerhardt 1 John Puls	15-15N-7W	1,450	Devonian	1,265	8-26-52
31.	Shelby	T. Glass 1 W. W. Horsman	17-11N-3E	3,056	Devonian	2,922	10-14-52
32.	Washington	H. H. Weinert 1 Bonnat	36-3S-5W	3,208	Trenton	3,138	12-23-52
33.	Washington	L. V. Horton 1 M. Metalmann	6-3S-5W	2,862	Trenton	2,760	7-29-52
34.	New Harmony Consol.	Superior Oil 17 H. C. Ford "C"	27-4S-14W	7,682	Shakopee	7,509	9-30-52
35.	Whiteside	E. L. Wirth 1 Hannis	22-19N-4E	1,551	Trempealeau	1,520	8- 5-52

* Plugged back to Salem production.

Most of the drilling for oil and gas in Illinois in 1952, as in previous years, was in the structural basin of southern Illinois. Wells were drilled in 48 of the state's 102 counties, and producing wells were drilled in 29 counties. More than half the wells completed in 1952 were concentrated in six counties. These counties are White, 305 completions; Wayne, 298; Lawrence, 133; Hamilton, 117; Edwards, 101; Wabash, 87.

There were no major pools among the 24 discovered in Illinois in 1952. The largest pool was Ruark West, with 31 producing wells at the end of the year, but this figure includes also Helena and Lancaster North, which were consolidated with Ruark West. The Tilden pool, Randolph County, discovered in November, 1951, but not reported as a new pool till 1952, had 19 producing wells at the end of 1952. Rinard North in Wayne County had 9 producing wells at the end of the year (Table I).

Total oil production in Illinois in 1952 was 60,071,000 barrels as compared with 60,244,000 barrels in 1951, a decrease of approximately one day's production. Average daily production in 1952 was 164,000 barrels as compared with 165,000 barrels in 1951.

EXPLORATORY DRILLING

Exploratory wells were drilled in 47 counties in Illinois in 1952 and new pools

were discovered in 16 counties. All but 3 of the 47 counties in which exploratory wells were drilled are in the southern two-thirds of the state. Most of the new pools discovered in 1952 are within 2 or 3 miles of previous production. Exceptions were the Harrisburg gas pool in Saline County (Table I, line 6), 6 miles from previous production, the New Memphis pool in Clinton County (Table I, line 10), 8 miles from previous production, and the Tilden pool in Randolph County (Table I, line 22), 4 miles from the old abandoned Sparta pool.

Three of the new pools discovered during the year produce from the Pennsylvanian: Junction City South, Staunton, and Wamac East. All are closely associated with old pools (discovered before 1937), and all appear to be of minor importance. Four new pools produced from the Silurian or Devonian. One of these, New Memphis South, was abandoned before the end of the year. Another, Tilden, a Silurian reef pool, appears to be one of the best discoveries of the last few years. New Memphis and Posey East are probably commercially unimportant. The Posen pool produces from the Trenton and appears to be one of the more productive pools discovered during the year. All the other new pools produce from the Mississippian.

New deep pays opened during the year include the Warsaw limestone in the Clay City Consolidated pool, the first Warsaw production reported in the state, Trenton in the Beaucoup pool, previously a Devonian pool, and Devonian in Patoka East, which has resulted in considerable Devonian testing throughout the Patoka area. Most of the other new pays are Mississippian in age.

Unsuccessful Devonian or Silurian tests were drilled in Beaver Creek South, Langewisch-Kuester, and Mattoon. Two dry Trenton tests were drilled in the Colmar-Plymouth pool.

Wildcat deep tests were drilled to the Devonian or deeper in 33 of the 47 counties drilled in during the year. An unusually large percentage of all wildcat wells tested Devonian and Silurian pays. Few wells, however, tested pre-Trenton formations. Tests were made to the St. Peter sandstone or below in Alexander, Monroe, White, and Whiteside counties.

Oil production in the Tilden and New Memphis pools is from Silurian reefs. It seems probable that the search for reef oil production, which had its first success with the discovery of the Marine pool in Madison County in 1943, will continue for some time in the same general region of southwestern Illinois.

A list of some of the most noteworthy dry holes completed in 1952 is given in Table IV. All of these reached the Devonian or older rocks. They are located generally around the margin of the deep basin area of southern Illinois. An exception to this is the Superior Oil Company's H. C. Ford "C" No. 17, Sec. 27, T. 4 S., R. 14 W., White County (Table IV, No. 34), which is not far from the deepest part of the structural basin. This well has a total depth of 7,682 feet and it established a new depth record for drilling in Illinois. It ended in the Shakopee dolomite, the top of which was at depth 7,509 feet. The well was plugged back to 3,796 feet to produce from the Salem formation, the top of which was at depth 3,753 feet (Table III, No. 18).

Another test well of special interest is the Mississippi River Fuel Corporation's A. Theobald No. A-15, SE. $\frac{1}{4}$, SW. $\frac{1}{4}$, Sec. 35, T. 1 S., R. 10 W., Monroe County (Table IV, No. 19), which was drilled as a stratigraphic test in connection with a proposed gas-storage operation on the Waterloo anticline in the area of the old abandoned Waterloo oil field. This well reached pre-Cambrian granite at the unexpectedly shallow depth of 2,760 feet; the basal Cambrian sandstone, the LaMotte, and some of the overlying strata normally present in the region are absent. Thus the Waterloo anticline lies over a pre-Cambrian hill several hundred feet high. A similar absence of these strata was previously found for the Pittsfield-Hadley anticline in Pike County,⁴ and is common in the St. Francois Mountains area of Missouri.

TABLE V. WILDCAT WELLS DRILLED IN ILLINOIS IN 1952

<i>Wildcat Near^A</i>			<i>Wildcat Far^B</i>			<i>Total Wildcats</i>	<i>Total Producers</i>	<i>Percentage Successful</i>
<i>Total</i>	<i>Producers</i>	<i>Percentage Successful</i>	<i>Total</i>	<i>Producers</i>	<i>Percentage Successful</i>			
404	61	15.1	256	8	3.1	660	69*	10.5

^A From $\frac{1}{2}$ to 2 miles from production.

^B More than 2 miles from production.

* Ten of the discovery wells reported in Tables I and II were old dry holes reworked.

WILDCAT FAR WELLS CLASSIFIED BY METHOD OF LOCATION

<i>Method of Location</i>	<i>Total</i>	<i>Producers</i>	<i>Percentage Successful</i>
Geology	214	6	2.8
Geophysics	14	2	14.3
Geology and geophysics	5	0	0
Non-scientific	23	0	0
Total	256	8	3.1

METHODS OF EXPLORATION

The principal methods used in locating exploratory wells continued to be subsurface geology and the reflection seismograph (Table V). The amount of seismograph work in 1952 was 72 crew-months as compared with 44 crew-months in 1951, an increase of 63 per cent. Gravity-meter work increased from 13 crew-months in 1951 to 14 crew-months in 1952.

INDIANA

By DONALD G. SUTTON

There were 1,280 wells drilled for oil and gas in Indiana during 1952, excluding water- or gas-input wells, salt-water disposal wells, and old wells worked over. This figure, compared with the total of 1,319 wells for 1951, represents a decrease of nearly 3 per cent. Of the 1,280 wells, 762 were drilled as field development wells and the remaining 518 were drilled as exploratory tests. These exploratory

⁴ L. E. Workman and Alfred H. Bell, "Deep Drilling and Deeper Oil Possibilities in Illinois," *Bull. Amer. Assoc. Petrol. Geol.*, Vol. 32 (1948), pp. 2043 and 2046.

TABLE VI. NUMBER OF GEOPHYSICAL CREWS ACTIVE IN ILLINOIS DURING 1952 BY MONTHS

	<i>Jan.</i>	<i>Feb.</i>	<i>Mar.</i>	<i>Apr.</i>	<i>May</i>	<i>June</i>	<i>July</i>	<i>Aug.</i>	<i>Sept.</i>	<i>Oct.</i>	<i>Nov.</i>	<i>Dec.</i>
Seismograph	3	4	5	5	5	6	8	7	7	8	7	7
Gravity meter	1	1	1	2	2	2	0	1	1	1	1	1

tests consisted of 335 new-field wildcats, 129 new-pool wildcats, and 54 outposts. Drilling resulted in 429 oil wells, 25 gas wells, and 826 dry holes.

The total footage for 1952 was 2,279,548 feet compared with 2,466,089 feet in 1951. Productive footage was 785,953 feet, and the dry-hole footage was 1,493,595 feet. The average depth per well in 1952 was 1,780 feet as against 1,869 feet for 1951.

Of the 335 new-field wildcats, 18 discovered oil pools and 4 discovered gas pools (Table VII). There were 42 extensions and 17 new pools discovered by successful new-pool wildcat and outpost tests while 11 field development wells discovered new pays in already producing fields or pools (Tables VIII and IX).

The total initial production of all oil wells completed was 30,070 barrels, compared with 30,273 barrels in 1951. The initial production for all gas wells completed decreased from 18,470 MCF in 1951 to 11,570 MCF in 1952. The average initial production for the discovery wells of the new pools was 46 barrels per well compared with 43.5 barrels per well in 1951.

During 1952, there were tests drilled in 41 of Indiana's 92 counties, which was 7 counties fewer than in 1951. Most of the drilling continued to be confined to the southwest part of the state. Considerably more than half the total wells, 847, were completed in 4 counties. These 4 were: Posey, 272; Gibson, 262; Knox, 192; and Pike with 121. Five other counties accounted for 274, which were: Sullivan with 83; Vanderburgh, 75; Vigo, 60; Spencer, 30; and Warrick, 26. This leaves 159 wells for the remaining 32 counties in which drilling operations were carried on.

New production was established in ten counties. Ranking the counties by total discoveries of all types, Gibson County was first with 28; Posey second with 19; Knox third with 16; Pike fourth with 8; Spencer and Vanderburgh fifth and sixth with 6 each; Daviess and Greene seventh and eighth with 3 each; Sullivan ninth with 2; and Vigo tenth with one.

Total oil production in Indiana during 1952 was 11,937,000 barrels as compared with 11,100,000 barrels in 1951, which represents an increase of 7 per cent.

With the exception of three of the new pools, the remaining discoveries were very small, resulting in one to five development wells with the majority being one-well to possibly two-well pools. The most important discovery during 1952 was the Riley South pool of Vigo County which produces from the Devonian limestone. The pool, discovered in September, was essentially drilled up by the end of the year, resulting in 11 producers and one dry hole. The operators have agreed to prorate the wells, and an estimate of 750,000 barrels of reserve has been set up for the pool. The Glezen pool in Pike County leads with the greatest

TABLE VII. DISCOVERY WELLS OF NEW POOLS IN INDIANA IN 1952

Pool	County	Company and Farm	Location	Total Depth (Feet)	Producing Formation	Initial Production (Barrels) ^A	Date of Completion
25. Barker	Vanderburgh	R. E. Hupp, Barker-Preston "A" 1	36-7S-11W	2,076	Cypress	24; 48	7-30
26. Barrett Mitchell South	Gibson	Geo. and Wrather, F. Arslinger 1	13-3S-10W	2,151	Ohara	85	9-3
27. Barrett Mitchell West	Gibson	Ashland-Buchman-O'Neal, Kissel 1	34-2S-10W	1,954	Lower Renault	85	10-15
28. Glezen	Pike	Wilson and Bradshaw, E. Dorsan 1	16-1S-8W	1,305	Bethel	150; 3	2-27
29. Grandview East	Spencer	Sun Oil, F. O. Varner 1	20-6S-4W	1,028	Jackson	30	8-13
30. Harmon Gas	Pike	Schoonmaker, W. Dearing 1	23-1S-8W	1,534	Pennsylvanian	2,500,000 cu. ft.	11-12
31. Howesville Gas	Greene	F. L. Lyons, E. McHenry 1	11-8N-7W	1,790	Devonian	180,000 cu. ft.	1-23
32. Johnson South	Gibson	Cherry and Kidd <i>et al.</i> , Callard 1	12-3S-13W	1,243	Pennsylvanian	14	7-16
33. Kolb North	Gibson	Morris Drilg., M. Roberts 1	Don 89-1S-10W	1,635	Bethel	100	11-12
34. Linton Gas	Greene	F. B. Cline, Shonk-Gabbhart 1	10-7N-7W	2,043	Devonian	2,000,000 cu. ft.	7-9
35. Mackey South	Gibson	Sanders and Fye, Kohlmeier 1	21-3S-9W	1,991	Cypress	17	12-24
36. Midway South	Spencer	N. Redwine, W. Sparks 1	13-6S-7W	913	Waltersburg	64; 3	6-4
37. Needmore	Knox	Graham Dev. Corp., Collins 1	34-2N-8W	1,376	Aux Vases	15	4-30
38. Newberry	Davess	B. Abney, Cornelius Bros. 2	6-5N-5W	558	Aux Vases	10; 1	9-3
39. Oden East	Davess	H. Sterling, V. & O. Daugherty 1	27-5N-5W	878	Salem	8; 8	1-30
40. Petersburg West	Pike	C. E. O'Neal <i>et al.</i> , G. Davis 2	32-1N-8W	2,495	Cypress	450,000 cu. ft.	11-19
41. Rahm	Vanderburgh	Benedum-Trees, R. Smith 1	1-8S-11W	1,506	Ste. Genevieve	75	1-7
42. Riley South	Vigo	Fillingame, Bressett Grocery 1	34-11N-8W	1,495	Devonian	108; 48	9-24
43. Spurgeon West	Pike	Ryan and Sharp, Julian Comm. 1	17-3S-7W	1,533	Ohara	24	9-17
44. Washington South	Davess	McCandlish, F. Caragham Hrs. 1	9-2N-7W	1,633	Salem	2	3-12
45. West Hovey South	Possey	J. H. Gilliam, W. Duckworth "A" 1	27-7S-14W	1,134	Pennsylvanian	10	8-27
46. Wheatonville North	Gibson	Geo. and Wrather, J. Deiss 1	24-3S-10W	1,670	Cypress	8	9-17

^A Oil and water.

TABLE VIII. DISCOVERY WELLS OF EXTENSIONS TO POOLS IN INDIANA IN 1952

Pool	County	Company and Farm	Location	Total Depth (Feet)	Producing Formation	Initial Production (Barrels) ^a	Date of Completion	Classification*
1. Caborn Consol.	Posey	Ryan Oil, Egli Hrs. 2	18-6S-12W	2,358	Cypress	23	2-6	NPW
2. Caborn Consol.	Posey	Dayton, W. M. Klein, 3-A	16-8S-12W	1,539	Pennsylvanian	20, 10	6-11	NPW
3. Denny	Sullivan	W. Reider, Gellinger Land Co. 1	14-8N-10W	859	Pennsylvanian	5	2-27	NPW
4. Farmersville	Posey	J. D. Turner, Holder 1	31-5S-11W	1,395	Pennsylvanian	74	3-19	OP
5. Francisco	Gibson	Bury, Driggs, Beasley 2	31-5S-10W	1,846	Aux. Vases ls.	77	12-17	OP
6. Glazen	Pike	Loftis & Son, Collins-Dorsan 1	16-5S-8W	1,537	Bethel	138	5-7	NPW
7. Hovesville Gas	Greene	F. Lyons, White Comm. 1	13-8N-7W	1,739	Devonian	250,000 cu. ft.	5-21	NPW
8. Martin	Posey	Heath, Wooley Comm. 1	12-5S-12W	2,350	Cypress	10, 2	1-2	OP
9. Monroe City	Knox	Don 229-2N-8W	Don 229-2N-8W	1,915	Aux. Vases	17, 2	1-7	OP
10. Monroe City	Knox	D. K. Driggs, Jobe-Held 1	30-2N-8W	1,808	Aux. Vases ls.	13, 40	1-30	NPW
11. Monroe City	Knox	Miami, Orest, Jobe-Held 1	30-2N-8W	1,567	Jackson	18, 2	7-30	NPW
12. Monroe City North	Knox	Clinton, Orest, Jobe-Held 1	Don 11-2N-9W	1,567	Aux. Vases ls.	150	2-27	NPW
13. Monroe City North	Knox	Tilden, Adams, Alton 1	Don 11-2N-9W	1,567	Aux. Vases	98	8-6	NPW
14. Monroe City South	Knox	D. C. Coll, Williams 1	27-2N-8W	1,529	Aux. Vases	18	8-13	NPW
15. Monroe City West	Knox	Lewis-Clemens, Hancock 1	Don 11-2N-9W	1,463	Ste. Genevieve	80, 30	10-22	OP
16. Monroe City West	Knox	Chick, Lambert, Snyder 1	Don 11-2N-9W	1,576	Aux. Vases	85	2-27	OP
17. Monroe City West	Knox	Head-Mitchell, Kramer 2	Don 12-2N-9W	1,596	Ste. Genevieve	130	8-26	NPW
18. Monroe City West	Knox	Afield Oil, McCoy 1	Don 12-2N-9W	1,626	Ste. Genevieve	325, 75	6-11	OP
19. Monroe City West	Knox	Afield Oil, Bonerits 1	13-N-7W	1,584	Ste. Genevieve	31, 7	12-10	OP
20. Mt. Vernon Consol.	Posey	G. S. Engle, Ries 1	27-5S-11W	3,380	Cypress	181	4-30	OP
21. Mt. Vernon Consol.	Posey	The Carter Oil, Rome Hrs. 1	27-5S-11W	3,380	Lower Devonian	40	11-5	NPW
22. Mumfords Hills	Gibson	Sanders & Fye, Mumford 1	29-3S-13W	2,583	C. Renault	20, 3	3-27	NPW
23. Owensville	Gibson	Barnett, O'Neal, Barnett-Whitman 1	19-3S-11W	2,633	Ste. Genevieve	100	9-24	NPW
24. Owensville East	Gibson	F. B. M. Hall, Montgomery 1	5-S-11W	2,838	Cypress	60	1-2	OP
25. Patoka East	Gibson	C. Bury, Bailey, "B", 1	20-5S-10W	2,014	Ste. Genevieve	10	3-12	OP
26. Patoka East	Gibson	Morris, Driggs, St. of Indiana, Anolis-Malone 1	25-1S-11W	1,861	Bethel	131	6-4	NPW
27. Patoka East	Gibson	Coy Oil, Huey 1	Loc. 7-1S-10W	1,965	Aux. Vases & Ste. Genevieve	150, 25	6-11	NPW
28. Patoka East	Gibson	Beard, Kolb 1	21-1S-10W	1,825	Aux. Vases	36	8-27	NPW
29. Patoka East	Gibson	Ill. Mid. Cont., Dunlap 1	28-1S-10W	1,853	Ste. Genevieve	137	10-15	NPW
30. Patoka East	Gibson	Geo. & Wratther, Kingsburg 1	31-1S-10W	2,563	Ste. Genevieve	125	12-17	NPW
31. Princeton North	Gibson	Barker, et al. Tate 1	16-5S-10W	2,563	Ste. Genevieve	125	11-12	NPW
32. Raim	Vanderburgh	Welch, Kusner 1	35-5S-11W	2,585	Ste. Genevieve	45, 20	11-19	NPW
33. Ridgeway Gas	Spartan	J. C. Ellis, et al. Williams 1	13-8S-7W	1,785	Tar Springs	3,000,000 cu. ft.	1-30	NPW
34. Union Bowman Consol.	Gibson	C. Bury, Rode 1	28-5S-9W	1,763	Bethel	48	1-7	OP
35. Union Bowman Consol.	Pike	Holland, Radcliff 1	16-1N-9W	1,763	Cypress	48	1-30	NPW
36. Union Bowman Consol.	Gibson	Haynes, et al. Fischel 2	Don 01-1S-10W	1,821	Ste. Genevieve	32	1-30	OP
37. Union Bowman Consol.	Pike	Ryan & Sharp, Dillon 1	21-1N-9W	1,822	Ste. Genevieve	35	1-16	OP
38. Union Bowman Consol.	Gibson	Lewis-Clemens, Clemm 1	21-1S-9W	1,809	Hardinsburg	10	4-16	NPW
39. Union Bowman Consol.	Gibson	Coy Oil, Smith 1	21-1S-9W	1,852	Hardinsburg & Bethel	34, 110	4-23	NPW
40. York Ferry	Sullivan	Pinkston, et al., Hawk 1	11-8N-11W	618	Pennsylvanian	38, 20	3-27	OP
41. Warrington East	Vanderburgh	Johnston Drigs, Heake 1	23-3S-10W	1,858	Jackson	25, 5	3-31	OP
42. Winslow	Pike	Moser, Richardson 1	31-1S-7W	1,126	Cypress	144, 96	11-12	NPW

^a Oil and water.

* NPW—new-pool wildcat.
OP—outpost.

TABLE IX. DISCOVERY WELLS OF ADDITIONAL PRODUCING ZONES IN POOLS IN INDIANA IN 1952

Pool	County	Company and Farm	Location	Total Depth (feet)	Producing Formation	Initial Production (Barrels)	Date of Completion	Classification*
1. Barker	Vanderburgh	Hupp, Barker-Preston 1	36-7S-11W	2,502	Ste. Genevieve	50	10-24	DPT
2. Barrett, Mitchell No.	Gibson	H. Sanders, E. Erdell 2	25-2S-10W	1,845	Aux Vases ls.	140	7-2	NPW
3. Belknap East	Vanderburgh	Indiana Farm Bureau, Schwitz 1	16-6S-11W	2,554	Aux Vases ls.	67	2-6	DPT
4. Bufkin West	Posey	Lebow, Wentzel 2	16-6S-13W	2,839	Aux Vases & Ohara (Ohara new pay)	123	9-11	FD
5. Caborn South	Posey	Dayton, Kincaid 1	36-6S-13W	1,770	Palestine	40; 25	2-14	FD
6. Caborn South	Posey	Rossi, Mueller 2	36-6S-13W	2,386	Tar Springs & Cypress (Tar Springs new pay)	80; 4	7-2	FD
7. Caborn South	Posey	Dayton, Martin 1	36-6S-13W	1,190	Pennsylvanian	20; 30	7-10	FD
8. Caborn West	Posey	C. C. Clark, Junker 1	13-6S-13W	2,762	Waltersburg	11	2-27	OP
9. Crunk South	Posey	J. Bander, Herman 1	20-7S-12W	(OWW0)	Ohara	100; 3	7-9	NPW
10. Farmersville	Posey	Turner, Holler 2	31-6S-13W	2,090	Waltersburg & Tar Springs (Tar Springs new pay)	100; 10	3-31	FD
11. Ford South	Gibson	Wilson-Vail-Asbland, Fawcett 1	34-6S-12W	2,734	Ste. Genevieve	28	6-11	NPW
12. Francisco	Gibson	Cunningham, Wilders 1	17-2S-9W	1,729	Aux Vases ls.	50	10-20	NPW
13. McGary	Gibson	O'Neal <i>et al.</i> , Woods 1	9-3S-11W	2,514	Aux Vases ls.	116	4-30	NPW
14. Mackey West	Gibson	Geo. & Wratber, Haley 1	9-3S-9W	1,750	Jackson	77	12-1	NPW
15. Midway South	Spencer	Gulf, Kinney 1	13-6S-7W	1,405	Ste. Genevieve	71	8-13	DPT
16. Midway South	Spencer	N. Redwine, Sparks 2	13-6S-7W	997	Tar Springs	1,500,000 cu. ft. est.	11-5	FD
17. Monroe City	Knox	Cline-Lambert, Nelson 1	30-2N-8W	1,276	Jackson	8; 10	2-27	OP
18. Monroe City	Knox	F. Lyons, Jenkins 1	Don 229-2N-8W	1,595	Ste. Genevieve	48	4-23	OP
19. Monroe City West	Knox	D. K. S. Drig., Jackson 1	Don 176-2N-9W	1,678	Aux Vases ls.	5; 15	2-20	NPW
20. Monroe City West	Knox	Cline-Lambert, Martindale 1	Don 11-2N-9W	1,580	Ste. Genevieve	240	2-27	OP
21. Mt. Vernon Cons.	Posey	Sinclair, Roos Unit 1	22-7S-14W	2,904	Lower Renault	670	9-3	FD
22. Mt. Vernon South	Posey	Indiana Farm Bureau, Armbruster 1	9-7S-13W	(OWW0)	Jackson	40	7-16	NPW
23. New Haven Cons.	Posey	Slagter Prod., Smith 1	28-6S-14W	1,854	Degonia & Cypress (Degonia new pay)	52	8-6	FD
24. Patoka East	Gibson	Juan Pet. Co., Manning 1	25-1S-11W	1,803	Bethel	30	8-6	NPW
25. Rogers	Posey	Calvert Drig., Guenther 1	19-4S-13W	3,019	Ste. Genevieve	52; 180	11-10	NPW
26. Santa Claus	Spencer	J. C. Jones, Kelly 1	25-4S-5W	605	Tar Springs	6	2-27	NPW
27. Tri County	Gibson	J. L. Black, T. H. Pool 1	8-3S-8W	1,633	Ste. Genevieve	7	3-10	OP
28. Wheatonville	Gibson	A. J. Slagter, Leffler 1	25-3S-10W	1,661	Cypress	62	7-30	NPW

A Oil and water.

* NPW—new-pool wildcat.

OP—outcrop.

DPT—deeper-pool test.

FD—field-development well.

number of producers, which, at the end of the year, totaled around 20; however, nearly the same number of dry holes had been drilled. Production is from the Bethel sand of the Chester. Kolb North, also Bethel production, discovered in November, at the end of the year had 7 producers and several active operations.

Sixteen of the 22 discovery wells of new pools produced from the Mississippian (10 oil pools and 1 gas pool from the Chester series and 5 oil pools from the Lower Mississippian). Of the remainder, 2 oil pools and 1 gas pool were from the Pennsylvanian, and 1 oil and 2 gas pools from the Devonian. Two of the pools produce from both the Chester and Lower Mississippian, and before the year was completed new pays were established in two other pools (Midway South and Barker) by deeper pool tests. Two old dry holes were worked over and successfully completed as new-pool discoveries.

TABLE X. SELECTED LIST OF DRY TESTS IN INDIANA IN 1952

<i>County</i>	<i>Company and Farm</i>	<i>Location</i>	<i>Total Depth (Feet)</i>	<i>Deepest Formation Tested</i>
1. Brown	Hiatt, Fee 1	33-10N-3E	1,435	Trenton
2. Crawford	Roggenkamp, Smith 1	11-2S-2W	2,740	Trenton
3. Dubois	Sunlight Coal, McGuire 1	14-2S-5W	2,424	Devonian
4. Fountain	The Carter Oil Company, Vester 1	33-22N-7W	1,626	Trenton
5. Gibson	T. & H. Corporation, H. and E. Smith 1	6-2S-11W	4,300	Devonian
6. Knox	George and Wrather-Poe, Geurrettaz 1	Loc. 97-3N-10W	5,470	Knox
7. Kosciusko	Eel River Oil, W. and E. Blocher 1	12-30N-6E	3,295	Mt. Simon?
8. Monroe	Joe Solomito, Fee 2	6-9N-1E	2,380	St. Peter

A list of some important dry holes completed in 1952 is given in Table X. The St. Peter test in Knox County was the deepest; however, the² test in Kosciusko County penetrated the deepest stratigraphic formation.

A trend may develop toward deeper drilling on some of the better structures since some Salem production has been established (Owensville North as an example) during the year. Subsurface work played the most important role in discovering new oil in 1952. There were only 3 weeks of geophysical work throughout the year with some scattered core drilling, most of which was done in the northern part or the Michigan basin part of the state. There were no gravity-meter crews operating during the year.

As in the past, subsurface studies of structural trends, of porosity-trap possibilities, and of sand-bar conditions in the southwest part of the state, where numerous Pennsylvanian and Chester sands and Ste. Genevieve oölitic limestone porosity zones afford good possibilities, will continue to play a very important part in the future exploratory program.

THE
LIBRARY OF THE
BOSTON PUBLIC LIBRARY
ASTOR LENOX TILDEN FOUNDATION
125 NASSAU ST. N.Y.C. 10038

LIBRARY
ENVIRONMENTAL PROTECTION AGENCY
STATE OF ILLINOIS
SPRINGFIELD, ILLINOIS